

has attained its greatest exuberance, namely, when the summer months are past and the light is beginning to decrease in its intensity and the days to shorten. So exactly, indeed, are the energies of the plants regulated by the amount of light to which they are exposed, that a constant arrangement, such as that here described, affords an excellent indication of the variation of the seasons in different years, or might even be made a rough measure of the total amount of light from month to month.

But while the demand for carbonic acid on the part of the plant varies in this manner with the seasons, the amount of that gas produced by the respiration of the fish is very nearly the same all through the year. Whence, then, does the plant obtain that additional quantity of food which its stimulated energies require during the spring and early summer months, and which its rapid and luxurious growth show to be readily supplied? After what has been stated, I think the source must be apparent to every one: it is the carbonic acid which has been gradually accumulated, and rendered innocuous to animal life from its being held in combination with carbonate of lime, in so marvellous a manner during the winter months. Stored up, yet held in feeble combination, a combination so weak that the vital forces of the fresh-growing vegetation can easily overcome it, and resolve once more into carbonate of lime, carbon, and oxygen the bicarbonate of lime contained in the water*.

Thus beautifully are the necessary irregularities in the purifying action of the plant compensated and provided for, that the balance of existence between the animal and vegetable organisms be not disturbed or overthrown, and thus additional proof is furnished, if such were needed, of the wisdom of that creative power that has ordered all things to work together for good, and by endowing certain bodies with such seemingly minute and insignificant affinities, maintains the glorious harmony of the whole.

MISCELLANEOUS.

Errata in Localities of Indian and Burmese Squirrels. Necessity of defining more exactly what is understood by India.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,—In Dr. Gray's very useful Synopsis of the Asiatic Squirrels in the Collection of the British Museum, published in the October number of the 'Annals,' some of the localities are incorrect. I venture to point out two or three such cases. I do not suppose that Dr. Gray is responsible for their accuracy, as he has doubtless taken them from the specimens in the British Museum; but, in any

* The rapid growth of submerged vegetation in rivers and waters containing a considerable amount of carbonate of lime must have been observed by all interested in the subject, in some cases obliging the cleansing of such streams three or four times during the year.

case, I have no doubt he will not object to my calling attention to the errors referred to.

1. *Sciurus Phayrei*, Blyth, is said to be from Malabar, on the authority of Mr. Blyth. It should be Martaban (in the Tenasserim provinces of British Burma); the species does not occur in India proper.

2. *S. chrysonotus*, Blyth, is from the Tenasserim provinces. See 'Catalogue of the Mammalia in the Museum of the Asiatic Society' (of Bengal).

3. *S. atrodorsalis*, Gray, was found by Mr. Blyth to be common at Maulmain. It certainly does not occur at Benares.

4. *S. Blanfordii*, Blyth, is not known from any part of India, nor from Pegu. It is, so far as is known, peculiar to Upper Burma, and my specimens were from within a few miles of Ava. How the mistake of ascribing this squirrel to India or Pegu has arisen I cannot understand. Mr. Blyth and myself are quoted as authorities for the localities. Now Mr. Blyth, in the two places in the 'Journal of the Asiatic Society of Bengal' in which he mentions the species, and also in the 'Catalogue of Mammalia in the Museum of the Asiatic Society,' distinctly gives Ava or Upper Burma as the locality, and I am certain I gave the same with the specimens which I presented to the British Museum.

There are a few other points in which Dr. Gray's localities differ slightly from those given by Mr. Blyth in the catalogue above cited (to the correctness of Mr. Blyth's localities in general I can bear testimony), but the differences are not of much importance. Those I have noted above are cases where the mistake extends to parts of different zoological provinces, which India and Burma are.

I feel sure, too, that there must be some error in attributing *Sciurus Finlaysonii* to Guzerat as well as to the neighbourhood of Java; and I very much indeed doubt if *S. vittatus* is found both in the Malay peninsula and in Ceylon.

I think it is much to be regretted that naturalists in Europe will not use the term India in a more definite and restricted sense. Dr. Gray, in this, follows the prevailing custom; but it is an objectionable one, I think. Thus I find India, Nepal; India, Nilgherries; India, Ceylon; India, Pegu and Upper Burma (!), as if all these places were equally included in India. I should have thought neither Ceylon nor Pegu would be considered parts of India; and I should much like to see Nepal excluded also, as it must be before the zoological characters of India proper begin to be properly understood. I may mistake Dr. Gray's meaning; if so, I beg to apologize for my error. The fact to which I allude is, however, notorious. It will, perhaps, be thought that India and Burma are parts of one zoological province. This is, I know, generally believed, and Dr. Günther has gone so far, in his 'Reptiles of British India,' as to join all the Malay countries, and even Southern China, with India proper. Indeed I believe that when I assert that the fauna of Hindustan, exclusive of the Himalayas and of the hills of Southern Indian and Ceylon, is quite as much African as Malay, I make a

statement no less novel than true. Yet a moment's reflection will show that a country abounding in wolves, foxes, hyænas, antelopes, bovine antelopes, and gazelles, bustards and sandgrouse, can scarcely be a part of the Malay or so-called Indian zoological province, where not a single representative of one of these animals exists. In this very instance, the squirrels attributed in error to India proper belong to a group shown by Mr. Blyth (Cat. Mam. Mus. As. Soc. p. 101, note) to be peculiar to the Indo-Chinese and Malay countries, and foreign to the peninsula of India with Ceylon. And that this most important fact of the mixture of African and Malay forms, the former prevailing in the plains, the latter in the hills, and perhaps on the Malabar coast of the Indian peninsula, is not recognized generally by European naturalists, I believe to be mainly due to the careless way in which specimens are labelled "India," when in reality they come from other parts of South-east Asia.

I am, Gentlemen, your obedient Servant,

Aden, Dec. 15th, 1867.

WILLIAM T. BLANFORD.

Preservation of Objects of Natural History.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,—I am not aware whether the following practical hint on the preservation of natural-history objects in glycerine is known or not; but, taking the risk of its being known, as it is a useful one, I send it for insertion in the 'Annals' if it be worth anything.

The specimens are to be soaked thoroughly for some days in the glycerine, the glycerine is then to be poured off, all but some five or six drops, and the bottle is to be well corked. I have by me some specimens of a species of *Vaginulus*, from Mauritius, which were, by accident, prepared in this way, and they look now (nearly one year since they were preserved) as fresh as they were on the next day after they were collected.

Of course the chief value of this method consists in its economy: and none who have tried glycerine as a preserving medium, but, I should think, would prefer it to alcohol; but the expense has hitherto been a bar to its common use.

I am, your obedient Servant,

WILMOT H. T. POWER,

Portland, Dorsetshire.

Assistant-Surgeon, 13th Light Infantry.

On Leskia mirabilis. By Dr. J. E. GRAY, F.R.S. &c.

Professor Lovén has received some specimens of this interesting Echinoderm, which I first published in the second series of this Journal, vol. vii. p. 134, and figured in the Catalogue of the Recent Echinidæ or Sea-eggs in the British Museum, t. 4. f. 4. They were obtained by Mr. Kinberg in the Indian seas between Singapore and Batavia. Dr. Lovén, in a paper in the Proceedings of the Swedish Academy for 1867, confirms the opinion that I expressed in the Museum Catalogue, that it is intermediate between the Spatangoid